

Appendix I

Construction Noise Modeling

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 08/06/2025
 Case Description: Dillard Groundwater Recharge and Solar Array Project

**** Receptor #1 ****

Description	Baselines (dBA)			
	Land Use	Daytime	Evening	Night
Recharge Berms and Well Pad Earthwork	Industrial	60.0	55.0	50.0

Description	Equipment					
	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40	80.0		50.0	0.0
Compactor (ground)	No	20	80.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Dozer	No	40	85.0		50.0	0.0
Grader	No	40	85.0		50.0	0.0

Results

Noise Limit Exceedance (dBA)										Noise Limits (dBA)		
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Night	Day	Calculated (dBA)				Day		Evening		Night		
		Day		Evening		Day	Night	Evening	Night			
Equipment		Lmax		Leq		Lmax		Leq		Lmax		
Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Lmax		
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Backhoe	N/A	N/A	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Compactor (ground)	N/A	N/A	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Tractor	N/A	N/A	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Dozer	N/A	N/A	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A		
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Grader	N/A	N/A	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A		

N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
		Total	85.0	86.2	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A				

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**** Receptor #1 ****

Description Night	Baselines (dBA)		Daytime	Evening
	Land Use			
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Interbasin and Inflow Structures Installation 50.0	Industrial		60.0	55.0

Description	Equipment					
	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
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Backhoe	No	40	80.0		50.0	0.0
Compactor (ground)	No	20	80.0		50.0	0.0
Crane	No	16	85.0		50.0	0.0
Excavator	No	40	85.0		50.0	0.0
Pumps	No	50	77.0		50.0	0.0

Results

Noise Limit Exceedance (dBA)					Noise Limits (dBA)				
Night	Day	Calculated (dBA)		Day Night	Evening		Lmax	Leq	Lmax
		Lmax	Leq		Lmax	Leq			
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Equipment Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
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Backhoe N/A	N/A	N/A	80.0 N/A	76.0 N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Compactor (ground) N/A	N/A	N/A	80.0 N/A	73.0 N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Crane N/A	N/A	N/A	85.0 N/A	77.0 N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Excavator			85.0	81.0	N/A	N/A	N/A	N/A	N/A

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**** Receptor #1 ****

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Turnout Pipeline Installation	Industrial	60.0	55.0	50.0

Description	Impact Device	Usage (%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40	80.0		50.0	0.0
Compactor (ground)	No	20	80.0		50.0	0.0
Crane	No	16	85.0		50.0	0.0
Excavator	No	40	85.0		50.0	0.0
Pumps	No	50	77.0		50.0	0.0

Results

Noise Limit Exceedance (dBA) Noise Limits (dBA)

Equipment	Night	Day	Calculated (dBA)		Day		Evening		Lmax
			Lmax	Leq	Night	Evening			
Backhoe	N/A	N/A	80.0	76.0	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	N/A	N/A	80.0	73.0	N/A	N/A	N/A	N/A	N/A
Crane	N/A	N/A	85.0	77.0	N/A	N/A	N/A	N/A	N/A
Excavator	N/A	N/A	85.0	81.0	N/A	N/A	N/A	N/A	N/A
Pumps	N/A	N/A	77.0	74.0	N/A	N/A	N/A	N/A	N/A

N/A	N/A	Total N/A	85.0 N/A	84.5 N/A	N/A N/A	N/A N/A	N/A	N/A	N/A
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